UDS
Mi Universidad

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4º A
RESISTENCIA DE MATERIALES
PEDRO GARCÍA
EJERCICIO UNIDAD 4

$3.20 \, Ton/M$

A ——— $5m$ ——— B
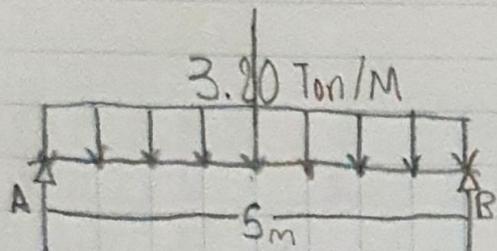
$U = L/2 = 5/2 = 2.5 M$

$F \cdot L = 3.20 \cdot 5 = 16 \, ton$

$RA = RB = \dfrac{ql}{2}$

$RA = RB = 8 \, ton$

$M_{MAX} = \dfrac{1}{8} ql^2$

$M_{MAX} = \underline{10 \, TM}$

$M_1 = 0$

$M_2 = 0 + \left(\dfrac{8 \cdot 2.5}{2} \right)$

$M_2 = 10$

$M_3 = 10 + \left(\dfrac{2.5 M - 8 ton}{2} \right)$

$M_3 = 0$

8 ton

0 ———— 2.5m ———— 0

+

−

−8 ton

M_2

M_1 M_3

0.65 TON   0.65 TON

A ─1─┼───── 3 ─────┼─ 1 B
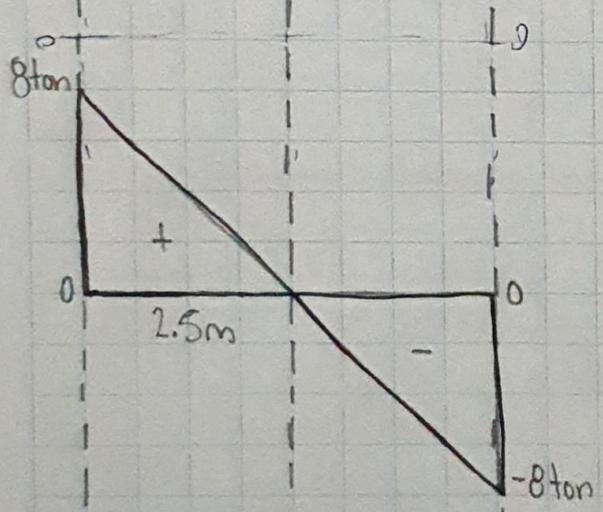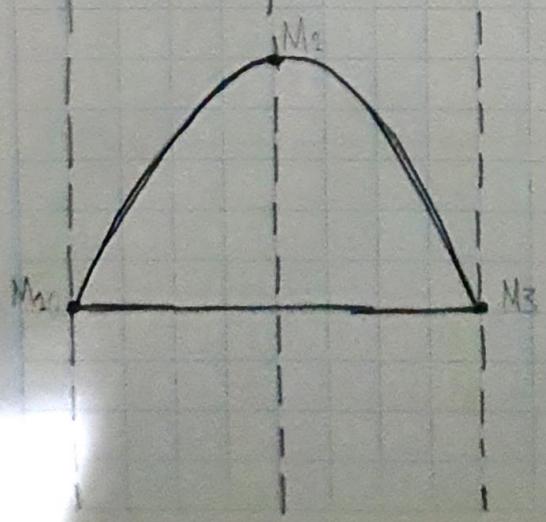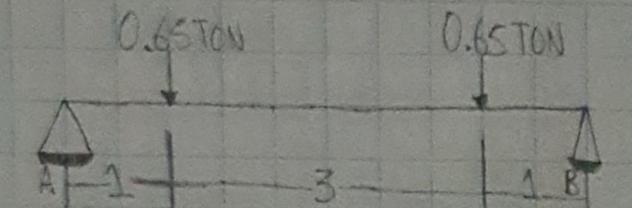
$RA = RB = F = 0.65 \text{ TON}$ //

$M = F \cdot A$
$M_1 = 0$
$M_2 = (0.65)(0.65 \cdot 1.00)$
$M_2 = (0.65)(0.65) = 4.225$

$M_3 = 0.4225(-0.65 \cdot 0.65)$
$M_3 = 0.4225$

$M_4 = 0$

$M_{MAX} = F \cdot A = 0.4225$

0.65

NMX
0 ─────────────────────── 0
1.00   1.00

                        -0.65

M2   M3

NMAX
M1   M4